

270 Series

Vitreous Enamel Power



Select 270 Type fixed resistors for applications requiring wattage ratings from 12 to 1000 watts. The 270 Type resistors are equipped with lug terminals suitable for soldering or sturdy bolt connection. When secure mounting is required, the hollow core of these resistors permit fastening with spring-type brackets, thru bolts or thru bolts with slotted-steel brackets.

Suitable for rugged applications, the 270 Type resistors feature all-welded construction and durable lead free vitreous enamel coating. Mounting brackets not included with resistors.

FEATURES

- Terminals suitable for soldering or bolt connection
- High wattage applications
- Rugged lead free vitreous enamel coating
- Flame resistant coating
- All-welded construction
- RoHS compliant available
- “Fast on” option – see terminal 538, <https://www.ohmite.com/assets/docs/terminals.pdf>

SERIES SPECIFICATIONS

Series	Wattage	Ohms	Core Code	Voltage	Std. Terminal
L12	12	0.1-51K	D	565	57
L25	25	0.15-100K	K	625	40
L50	50	0.38-260K	K	1625	40
L100	100	0.23-101K	M	2845	40
L175	175	0.13-101K	P	3595	46
L225	225	0.16-129K	P	4595	46
L500	500	0.38-218K	S	4970	45
L1000	1000	0.69-392K	S	8900	45

Non-Inductive versions available; Other sizes available; Also available in low cost Centohm or Silicone coating; Consult Ohmite.

* Maximum Voltage is based on Ohm's Law $[V=\sqrt{P \cdot R}]$ as limited by the resistance value of specified product

CHARACTERISTICS

Coating	Lead free vitreous enamel. Large models (500 watts and up) are supplied in Silicone Ceramic. Also available in low-cost Centohm coating; Consult factory.										
Core	Tubular ceramic.										
Terminals	Solder coated radial lug. RoHS solder composition is 96% Sn, 3.5% Ag, 0.5% Cu										
Derating	Linearly from 100% @ +25°C to 0% @ +350°C.										
Tolerance	±5% 1Ω and over (J); ±10% under 1Ω (K)										
Power rating	Based on 25°C free air rating.										
Overload	10 times rated wattage for 5 seconds.										
Temperature coefficient	1 to 20Ω: ±400 ppm/°C; Above 20Ω: ±260 ppm/°C										
Dielectric withstanding voltage	1000 VAC: 12 to 100 watt rating. 3000 VAC: 175 to 225 watt rating (Measured from terminal to mounting bracket)										
Max. amps	use the formula $\sqrt{P/R}$										
Power limitations for high resistance values	When resistance exceeds the resistance values listed, derate the Power Rating by 25% to improve reliability. <i>No power derating necessary for ratings higher than 100W.</i>										
	<table border="1"> <thead> <tr> <th>Power rating</th> <th>Resistance value</th> </tr> </thead> <tbody> <tr> <td>12W</td> <td>3,900Ω</td> </tr> <tr> <td>25W</td> <td>12,000Ω</td> </tr> <tr> <td>50W</td> <td>35,000Ω</td> </tr> <tr> <td>100W</td> <td>75,000Ω</td> </tr> </tbody> </table>	Power rating	Resistance value	12W	3,900Ω	25W	12,000Ω	50W	35,000Ω	100W	75,000Ω
Power rating	Resistance value										
12W	3,900Ω										
25W	12,000Ω										
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100W	75,000Ω										
Mounting Hardware	see https://www.ohmite.com/assets/docs/hardware_resistor.pdf										

(continued)

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DIMENSIONS

in./mm



Series	Wattage	L		D		C		Core Code*	Std. Term.**
L12	12	1.75	44.4	0.313	7.94	0.188	4.76	D	57
L25	25	2.0	50.8	0.562	14.3	0.313	7.94	K	40
L50	50	4.0	101.6	0.562	14.3	0.313	7.94	K	40
L100	100	6.5	165.1	0.750	19.1	0.50	12.7	M	40
L175	175	8.5	215.9	1.125	28.6	0.75	19.1	P	46
L225	225	10.5	266.7	1.125	28.6	0.75	19.1	P	46
L500	500	12.0	304.8	2.50	63.5	1.75	44.5	S	45
L1000	1000	20.0	508.0	2.50	63.5	1.75	44.5	S	45

* <https://www.ohmite.com/assets/docs/200-210-270-custom.pdf>

** <https://www.ohmite.com/assets/docs/terminals.pdf>

ORDERING INFORMATION

Standard

F = Fast on (optional)
 Non-inductive Blank = Standard N = Non-inductive
 RoHS Compliant

L 25 J 1 0 0 E

Coating: Blank = Vitreous, C = Centohm, S = Silicone
 Series: L
 Wattage: 25
 Tolerance: J = 5%, K = 10%
 Ohms: 1R0 = 1Ω, 250 = 250Ω, 1K0 = 1,000Ω, 25K = 25,000Ω, 25K5 = 25,500Ω

Made-to-order

Non-inductive Blank = Standard N = Non-inductive
 Core Diameter See "Core and Terminal Selection"
 RoHS Compliant

2 7 0 5 0 K 4 0 5 R 0 0 J E

Coating: 270 = Vitreous, 470 = Silicone Ceramic
 Wattage: 50
 Ohms: R500 = 0.500Ω, 1R00 = 1Ω, 250R = 250Ω, 1K00 = 1,000Ω, 25K0 = 25,000Ω, 25K5 = 25,500Ω
 Terminal Type: See "Resistor Terminals for Tubular Cores"

See website for custom core and terminal info

Standard part numbers for 270 series

Ohmic value	Wattage		Part No. Prefix Suffix	Wattage		Part No. Prefix Suffix	Wattage		
	12 Watt	12 Watt		25	50		100	175	225
0.51	✓	L12JKR51E	L25J	L50J	L100J	L175J	L225J	L500J	L1000J
1	✓	L12J1R0E	✓	✓	✓	✓	✓	✓	✓
3.3	✓	L12J3R3E	✓	✓	✓	✓	✓	✓	✓
4.7	✓	L12J4R7E	✓	✓	✓	✓	✓	✓	✓
10	✓	L12J10RE	✓	✓	✓	✓	✓	✓	✓
12	✓	L12J12RE	✓	✓	✓	✓	✓	✓	✓
15	✓	L12J15RE	✓	✓	✓	✓	✓	✓	✓
22	✓	L12J22RE	✓	✓	✓	✓	✓	✓	✓
27	✓	L12J27RE	✓	✓	✓	✓	✓	✓	✓
33	✓	L12J33RE	✓	✓	✓	✓	✓	✓	✓
47	✓	L12J47RE	✓	✓	✓	✓	✓	✓	✓
68	✓	L12J68RE	✓	✓	✓	✓	✓	✓	✓
82	✓	L12J82RE	✓	✓	✓	✓	✓	✓	✓
100	✓	L12J100E	✓	✓	✓	✓	✓	✓	✓
150	✓	L12J150E	✓	✓	✓	✓	✓	✓	✓
		51000	✓	✓	✓	✓	✓	✓	✓
			1R0E	2R0E	3R0E	4R0E	5R0E	10RE	15RE
			25RE	50RE	100RE	175RE	225RE	500RE	1000RE
			100E	125E	150E	200E	250E	500E	750E
			800E	1000E	1500E	2000E	5000E	7500E	10000E
			2000E	2500E	5000E	7500E	10000E	15000E	20000E
			25000E	30000E	35000E	40000E	50000E	60000E	75000E
			100000E	150000E	200000E	250000E	500000E	750000E	1000000E
			200000E	250000E	500000E	750000E	1000000E	1500000E	2000000E
			250000E	500000E	750000E	1000000E	1500000E	2000000E	2500000E

✓ = Standard values; check availability using the worldwide inventory search at www.ohmite.com

Red outlined values supplied in Silicone-Ceramic coatings instead of vitreous enamel.



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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



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